

Title (en)

LOCAL INTERCONNECT USING A MATERIAL COMPRISING TUNGSTEN

Publication

EP 0463373 A3 19920325 (EN)

Application

EP 91108472 A 19910524

Priority

US 54619390 A 19900629

Abstract (en)

[origin: EP0463373A2] A tungsten silicide interconnect (28) is formed on device (14) as a local interconnect between devices. The tungsten silicide interconnect (28) provides several advantages over prior art methods, such as titanium nitride or polysilicon local interconnects. <IMAGE>

IPC 1-7

H01L 21/90; H01L 23/532

IPC 8 full level

H01L 21/28 (2006.01); **H01L 21/308** (2006.01); **H01L 21/3205** (2006.01); **H01L 21/3213** (2006.01); **H01L 21/768** (2006.01); **H01L 23/52** (2006.01); **H01L 23/532** (2006.01); **H01L 29/43** (2006.01)

CPC (source: EP)

H01L 21/32136 (2013.01); **H01L 21/76889** (2013.01); **H01L 21/76895** (2013.01); **H01L 23/53257** (2013.01); **H01L 2924/0002** (2013.01)

Citation (search report)

- [X] GB 2151847 A 19850724 - HITACHI LTD
- [X] WO 8607491 A1 19861218 - NCR CO [US]
- [X] EP 0195700 A1 19860924 - CENTRE NAT RECH SCIENT [FR]
- [X] DE 3027954 A1 19820225 - SIEMENS AG [DE]
- [X] EP 0158559 A1 19851016 - COMMISSARIAT ENERGIE ATOMIQUE [FR]
- [Y] PROCEEDINGS OF THE 2ND INT. IEEE VLSI MULTILEVEL INTERCONNECTION CONFER. 25 June 1985, SANTA CLARA, CA. pages 319 - 323; Pamela S. TRAMMEL: "Application of Tungsten Silicide interconnect"
- [Y] SOLID STATE TECHNOLOGY vol. 27, no. 4, April 1984, pages 235 - 242; Stephen E. CLARK et al.: "Deposition and patterning of Tungsten and Tantalum polycides"
- [Y] PATENT ABSTRACTS OF JAPAN vol. 12, no. 379 (E-667) 11 October 1988, & JP-A-63 126226 (MITSUBISHI ELECTRIC CORP.) 30 May 1988,
- [Y] IEEE TRANSACTIONS ON ELECTRON DEVICES. vol. ED-34, no. 3, March 1987, NEW YORK US pages 682 - 688; Thomas E. TANG et al.: "Titanium Nitride local interconnect technology for VLSI"
- [X] IEDM TECHNICAL DIGEST 11 December 1988, SAN FRANCISCO, CA. pages 450 - 453; V.V. LEE et al.: "A selective CVD Tungsten local interconnect technology"

Cited by

WO0065654A1; US6010966A; US5354417A; US6136211A; US5866483A; US6740942B2; US6905800B1; US6797188B1; US6699399B1; EP1801455A1; US6322714B1; US6791191B2; US6667245B2; US6852242B2; US6787054B2; US6527968B1; US6872322B1

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